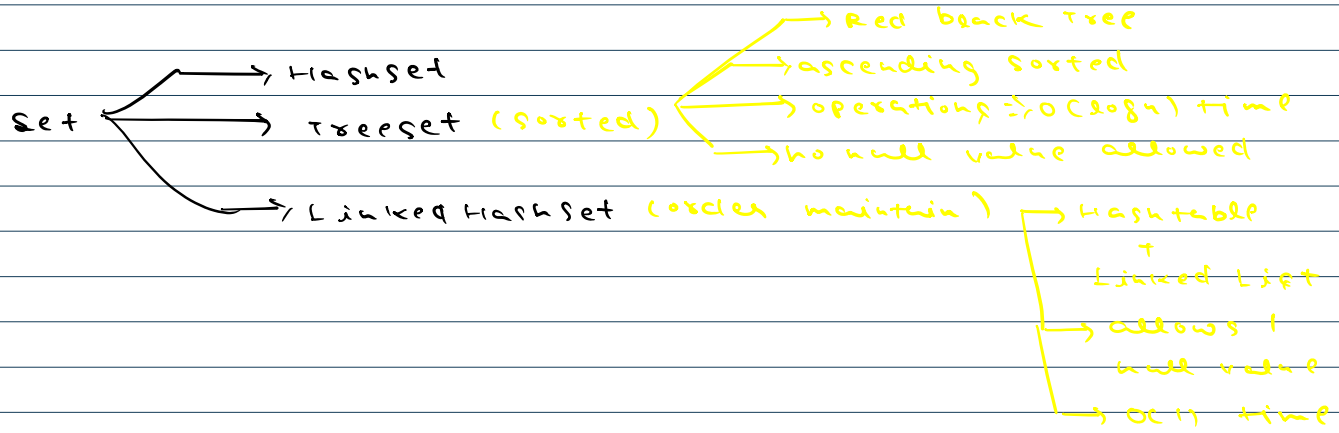
Hashset

It stores unique elements.

- O(1) insertion time
- O(1) search time
- No order

Implementation (Hashset)

1. Uses Hash table internally.
2. It only allows one null element.
3. Lowest memory among three



Hashmap

1. Stores key value pairs
2. Uses hashtable internally
3. Time O(1).
4. one null key & multiple null values
5. random order
6. thread unsafe

Question → Frequency Count

String name = "Akash"

Chck count

key	value
A	~~1~~ 2
K	1
r	1
S	1
H	1

1. Iterate over string
2. Check if not present in hashmap,

1) - Iterate over string
2) - Check if not present in hashmap,
make a fresh entry
3) - otherwise read existing value (temp)
make entry again with same key
(temp + 1 as value)

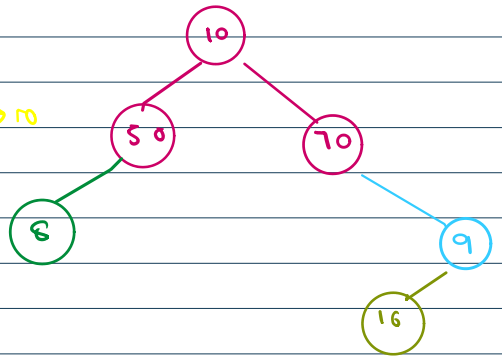
s	1
n	1

Tree Construction Using Level Order

{ 10, 50, 70, 8, -1, -1, 9, -1, -1, 16, -1, -1, -1 } → input → Tree

Level order Traversal

10	50	70	8	9	16



10
50 70
8 -1 -1 9
-1 -1 16 -1
-1 -1

-1 => null

Construction of BT using traversal

Preorder :- ~~A~~ ~~B~~ ~~D~~ ~~H~~ ~~E~~ ~~C~~ F G
Inorder :- D H B E A F C G